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*United  
States  
Steel  
Corporation*

600 GRANT STREET  
PITTSBURGH, PENNSYLVANIA 15230

December 20, 1977

WALTER E. JACKSON  
ASSOCIATE DIRECTOR  
ENVIRONMENTAL CONTROL—WEST

Mr. Joseph Snyder  
Section Chief  
Compliance Section  
Indiana Stream Pollution Control Board  
1330 West Michigan Street  
Indianapolis, Indiana 46206

Gary Works NPDES Program

Dear Mr. Snyder:

In my letter of September 29, 1977 I outlined the status of our NPDES program. This report will serve as an update and summary of current activity based on letters sent by Gary Works since my previous correspondence.

max? Since September 29 there have been six occurrences where zinc concentrations in outfall ST-17 exceeded the permit value of 0.30 milligrams per liter. We have not been able to determine the exact cause of these episodes, even though intensive investigations are continuing. As we indicated previously, start-up problems associated with the No. 1 electro-galvanizing line were believed related to initial excursions. However, these problems were resolved and we now have no single source that appears to be responsible. Numerous flows discharge into the terminal treatment plant that could contain trace concentrations of zinc. These include cooling tower blowdown water and oily wastes from the tin mill operations. These flows are being monitored, but to date they are found to be low in zinc concentration. We believe that the control procedures and treatment process are adequate for zinc removal, but the limits in our permit are too low based on the solubility of zinc. The attached report, Exhibit I, reviews the technical data for zinc and supports an effluent standard of 1.0 mg/l 30-day average and 2.0 mg/l daily average. We are requesting that you consider a modification of our permit limits to include these more realistic values.

There have been four occurrences of chromium excursions above the 0.30 mg/l standard for ST-17 since September 29. One of these occurrences was not able to be explained after an intensive investigative effort. The other three occurrences were the result of inadvertent

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leaks or overflows at our tin free steel line, where chromic acid is used in the electro-plating process. Chrome removal at the terminal treatment plant was not sufficient to achieve the standard on these occasions. One occurrence involved an overflow at the chromic acid operating tank (10-27-77); another occurrence resulted from a gasket leak in the acid recirculating system (11-28-77); and the third occurrence was the result of a pipe leak in the chromic acid system (11-11-77). In each instance where a leak was determined, the process was shut down until repairs were completed. Meetings have been held with operating personnel and surveillance has been increased to minimize future occurrences. To avoid inadvertent overflows, we are investigating level warning devices for operating tanks. With a combination of these efforts and our continued diligence, we believe future excursions above the present standard can be minimized.

For outfall GW-5, there have been only two ammonia excursions above permit levels since September 29. There has been a general reduction in ammonia discharges since the unexplained high values earlier in the year. We cannot single out the reasons, either for the unusually high values, or for the recent decrease. However, we believe the increased discharges associated with bringing blast furnaces on line may have been a factor early in the year. Also, we have continued with our program at No. 13 furnace to avoid cross-connections and other waste water discharges that may have impacted the GW-5 effluent. Our surveillance at the blast furnaces will continue in an effort to maintain compliance with permit conditions.

Your response to our proposed zinc limits is anticipated. Please don't hesitate to contact me if there are any questions.

Very truly yours,

A handwritten signature in cursive script that reads "W. E. Jackson".

Walter E. Jackson  
Associate Director  
Environmental Control-West

WEJ:mjh

cc: B. G. Constantelos